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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,816	08/09/2006	Kiyofumi Mori	1163-0563PUS1	3949

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EXAMINER	
PAUL, DISLER	

ART UNIT	PAPER NUMBER
2615	

NOTIFICATION DATE	DELIVERY MODE
12/17/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	10/588,816	MORI ET AL.	
	Examiner	Art Unit	
	Disler Paul	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-8 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-8 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 8/9/06.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,3-4,7-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Hirayanagi (US 6,445,804 B1).

As stated in the MPEP § 2111.02 (please see also Kropa v. Robie, 187 F.2d 150, 152, 88 USPQ 478, 481 - CCPA 1951), if the preamble of the claim neither recites the limitations of the claim nor is necessary to give life, meaning, and vitality to the claim; then the preamble of the claim is not served to further define the structure of the claim. Thus, in regards to independent **Claims 1, 7, 8**, the preamble of the claim is not given any patentable weight since the preamble of the claim neither recites the limitations of the claim nor is necessary to give life, meaning, and vitality to the claim.

RE claim 1, Hirayanagi disclose of the moving object equipped with ultra-directional speaker, said moving object comprising: a modulator for modulating an ultrasonic carrier signal with an input electric signal from an audible sound signal source; and an emitter for emitting an output signal of said modulator (fig.1-7; col.1 line 35-40; 60-67).

Re claim 2, the moving object equipped with ultra-directional speaker according to claim 1, characterized in that said moving object comprises a voice detecting means (fig.1 wt (4); fig.7 wt (121)), a target direction detecting means for detecting a direction of a target to which a voice is to be provided, and an emitter orientation control means for controlling the emitter so that the emitter is oriented toward the target which is identified

by said target direction detecting means (fig.1 wt (50,5-6);col.5 line 50 up to col.6 line 4; col.3 line 30-37;col.4 line 60-67).

Re claim 7, Hirayanagi disclose of the method of controlling an output gain of a moving object equipped with an ultra-directional speaker for transmitting a modulated signal which is obtained by modulating an ultrasonic carrier signal with an audible sound signal, said method comprising the steps of: transmitting an ultrasonic signal to a target by way of said ultra-directional speaker, and then determining a time that has elapsed before receiving a reflection of said ultrasonic signal from said target and estimating a distance to said target on the basis of said determined time (fig.1-7 wt (acoustic reflect);col.1 line 35-50; col.2 line 1-10; col.3 line 10-37; col.6 line 10-22); and determining *a gain value* of said ultra-directional speaker according to said estimated distance so that a voice output of said ultra-directional speaker can be transmitted to said target (col.1 line 45-50; col. 5 line 60-65/audio generator /controller based on estimating distance).

Re claim 8 has been analyzed and rejected with respect to claim 7 above.

Re claim 3, the moving object equipped with ultra-directional speaker according to claim 1, characterized in that the emitter is provided with two or more ultrasonic vibration elements and an ultrasonic (fig.1 wt (50,2); col.5 line 40-50; col.6 line 12-20; col.5 line 50-60/vibration to reflect to listener); and an ultrasonic receive sensor or an ultrasonic transmit sensor consists ultrasonic vibration elements (fig.1 wt (4); col.6 line 10-22/receiving sensor).

Re claim 4, the moving object equipped with ultra-directional speaker according to claim 3, characterized in that said moving object comprises a sound level adjustment means for adjusting a level of an output voice from the emitter (fig.7 wt (122,101); fig.1; col.6 line 10-22), and a distance detecting means for transmitting an ultrasonic signal to the target from an ultrasonic vibration element, and for determining a time that has elapsed before receiving a reflection of said ultrasonic signal from said target so as to measure a distance to said target on the basis of the determined time, and characterized in that said sound level adjustment means adjusts the level of the output voice according to an output of said distance detecting means (fig.1-7; col.6 line 10-22;col.5 line 50-67;col.1 line 35-50).

3. Claims 5-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Hirayanagi (US 6,445,804 B1) and further in view of Amir et al. (US 7,130,705 B2).

Re claim 5, the moving object equipped with ultra-directional speaker according to claim 4, characterized in that said moving object comprises an output level control means for automatically controlling output level adjusted by the sound level adjustment means according to the output of the distance detecting means (fig.1 wt (4-6,50); fig.8 wt (122,101); col.1 line 35-50; col.6 line 10-25).

However, Hirayanagi fail to disclose of the further characterized in that said moving object comprises an automatic gain control means for controlling gain adjustment of the level of the output voice adjusted by the sound level adjustment means according to the output of the distance detecting means.

But, Amir et al. disclose of a system wherein the automatic gain control means for controlling gain adjustment of the level of the output voice adjusted by the sound level adjustment means according to the output of the distance detecting means (fig.1; (18,12-14,26); col.3 line 50-65) for the purpose of providing stabilizing the variations of audio level output cause by rapid movement of the persons. Thus, taking the combined teaching of Hirayanagi and Amir et al. as a whole, it would have been obvious for one of the ordinary skill in the art at the time of the invention to have modify Hirayanagi by incorporating the controlling gain adjustment of the level of the output voice adjusted by the sound level adjustment means according to the output of the distance detecting means for the purpose of providing stabilizing the variations of audio level output cause by rapid movement of the persons.

Re claim 6, the moving object equipped with ultra-directional speaker according to claim 5, characterized in that said moving object comprises a voice recognition and generation means for performing voice recognition on a voice detected by a voice detecting means (fig.1 wt (4); fig.7 wt (121)) , and for generating a voice signal which is to be transmitted by the emitter (fig.1 wt (50,5-6);col.5 line 50 up to col.6 line 4; col.3 line 30-37;col.4 line 60-67).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Disler Paul whose telephone number is 571-270-1187. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DP

VIVIAN CHIN
SUPERVISORY PATENT EXAMINER
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